



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R03-OAR-2021-0872; EPA-HQ-OAR-2021-0663; FRL-9493-01-R3]

#### Air Plan Disapproval; Maryland; Interstate Transport of Air Pollution for the 2015 8-Hour

#### Ozone National Ambient Air Quality Standard

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove a State Implementation Plan (SIP) submittal from Maryland intended to address interstate transport for the 2015 8-hour ozone national ambient air quality standard (2015 8-hour ozone NAAQS). The “good neighbor” or “interstate transport” provision requires that each state’s SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of “infrastructure” requirements, which are designed to ensure that the structural components of each state’s air quality management program are adequate to meet the state’s responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

**DATES:** Written comments must be received on or before **[insert date 60 days after date of publication in the *Federal Register*]**.

**ADDRESSES:** You may send comments, identified as Docket No. EPA-R03-OAR-2021-0872, by any of the following methods: Federal eRulemaking Portal at <https://www.regulations.gov> following the online instructions for submitting comments or via email to

gordon.mike@epa.gov. Include Docket ID No. EPA-R03-OAR-2021-0872 in the subject line of the message. For further submission methods contact the person in the FOR FURTHER INFORMATION CONTACT section. Include Docket ID No. EPA-R03-OAR-2021-0872 in the subject line of the message.

*Instructions:* All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to <https://www.regulations.gov/>, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the “Public Participation” heading of the SUPPLEMENTARY INFORMATION section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID-19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at <https://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** Michael Gordon, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. The telephone number is (215) 814-2039. Mr. Gordon can also be reached via electronic mail at [gordon.mike@epa.gov](mailto:gordon.mike@epa.gov).

**SUPPLEMENTARY INFORMATION:** *Public Participation:* Submit your comments, identified by Docket ID No. EPA-R03-OAR-2021-0872, at <https://www.regulations.gov> (our preferred method), or the other method identified in the ADDRESSES section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA’s docket at <https://www.regulations.gov> any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be

accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA-R03-OAR-2021-0872 and EPA-HQ-OAR-2021-0663. Docket No. EPA-R03-OAR-2021-0872 contains information specific to Maryland, including the notice of proposed rulemaking. Docket No. EPA-HQ-OAR-2021-0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA-R03-OAR-2021-0872 only. For additional submission methods, please contact Mike Gordon, 215-814-2039, [gordon.mike@epa.gov](mailto:gordon.mike@epa.gov). For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>. Due to public health concerns related to COVID-19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at <https://www.epa.gov/dockets>.

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID-19.

The index to the docket for this action, Docket No. EPA-R03-OAR-2021-0872, is available electronically at [www.regulations.gov](http://www.regulations.gov). While all documents in the docket are listed in the index, some information may not be publicly available via the online docket due to docket

file size restrictions, such as certain modeling files, or content (e.g., CBI). Please contact the EPA Docket Center Services for further information.

Throughout this document, “we,” “us,” and “our” means the EPA.

## **I. Background**

### *A. Description of Statutory Background*

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).<sup>1</sup> Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised NAAQS, SIP submissions meeting the applicable requirements of section 110(a)(2).<sup>2</sup> One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the “interstate transport” or “good neighbor” provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called “prongs” within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).<sup>3</sup>

### *B. Description of the EPA’s Four-Step Interstate Transport Regulatory Process*

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<sup>1</sup> National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

<sup>2</sup> SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

<sup>3</sup> See *North Carolina v. EPA*, 531 F.3d 896, 909-11 (D.C. Cir. 2008).

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate all of the states' SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS, as well as the 1997 and 2006 fine particulate matter standards,<sup>4</sup> and the Cross-State Air Pollution Rule Update (CSAPR Update)<sup>5</sup> and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.<sup>6</sup>

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,<sup>7</sup> the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (i.e., nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (i.e., downwind) states sufficiently such that the states are considered "linked" and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step

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<sup>4</sup> See Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (August 8, 2011).

<sup>5</sup> Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (October 26, 2016).

<sup>6</sup> In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin v. EPA*, 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the "CSAPR Close-Out," 83 FR 65878 (December 21, 2018), in *New York v. EPA*, 781 F. App'x. 4 (D.C. Cir. 2019).

<sup>7</sup> In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the "NO<sub>x</sub> SIP Call," 63 FR 57356 (October 27, 1998), and the "Clean Air Interstate Rule" (CAIR), 70 FR 25162 (May 12, 2005).

1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

*C. Background on the EPA's Ozone Transport Modeling Information*

In general, the EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which the EPA requested comment on preliminary interstate ozone transport data, including projected ozone design values and interstate contributions for 2023 using a 2011 emissions platform.<sup>8</sup> In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.<sup>9</sup> On October 27, 2017, the EPA released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations

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<sup>8</sup> See Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

<sup>9</sup> See 82 FR 1733, 1735 (January 6, 2017).

for the 2008 ozone NAAQS.<sup>10</sup> On March 27, 2018, the EPA issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.<sup>11</sup> The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.<sup>12</sup> The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.<sup>13</sup>

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016 emissions platform (i.e., 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.<sup>14</sup> This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and

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<sup>10</sup> See Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in docket ID No. EPA-HQ-OAR-2021-0663.

<sup>11</sup> See Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (March 2018 memorandum), available in docket ID No. EPA-HQ-OAR-2021-0663.

<sup>12</sup> The March 2018 memorandum, however, provided, “While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states’ obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.”

<sup>13</sup> See Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018 (August 2018 memorandum), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in docket ID No. EPA-HQ-OAR-2021-0663.

<sup>14</sup> The results of this modeling, as well as the underlying modeling files, are included in docket ID No. EPA-HQ-OAR-2021-0663.

states in regulatory modeling as an improvement over the dated 2011 emissions platform to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.<sup>15</sup> Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 emissions platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 8-hour ozone NAAQS.<sup>16</sup>

Following the final Revised CSAPR Update, the EPA made further updates to the 2016v1 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model<sup>17</sup> and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2 (2016v2 emissions platform), is described in the Emissions Modeling technical support document (TSD) for this proposed rulemaking.<sup>18</sup> The EPA performed air quality modeling of the 2016v2 emissions platform using the most recent public release version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10<sup>19</sup> in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, the EPA is using the most recent available and technically appropriate information for this proposed rulemaking. Section III of this document and the Air Quality Modeling TSD for the 2015 8-hour Ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA-HQ-OAR-2021-0663 for this proposal, contain

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<sup>15</sup> See 85 FR 68964, 68981

<sup>16</sup> See the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA-HQ-OAR-2021-0663.

<sup>17</sup> Additional details and documentation related to the MOVES3 model can be found at <https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves>.

<sup>18</sup> See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA-HQ-OAR-2021-0663.

<sup>19</sup> Ramboll Environment and Health, January 2021, [www.camx.com](http://www.camx.com).

additional detail on the EPA's 2016v2 modeling. In this document, the EPA is accepting public comment on this updated 2023 modeling, which uses the 2016v2 emissions platform. Comments on the EPA's air quality modeling should only be submitted in the Regional docket for this action, docket ID No. EPA-R03-OAR-2021-0872. No comments on any topic are being accepted in docket ID No. EPA-HQ-OAR-2021-0663.

States may have chosen to rely on the results of the EPA modeling and/or alternative modeling performed by states or MJOs to evaluate downwind air quality problems and contributions as part of their submissions. In Section III of this document, the EPA evaluates how Maryland used air quality modeling information in their submission.

#### *D. The EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS*

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO<sub>x</sub> SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an "efficient and equitable" approach. *See EME Homer City Generation, LP v. EPA*, 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's

submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential “flexibilities” as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so. The EPA’s proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment is described in this section.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 8-hour ozone NAAQS. Attachment A to the March 2018 memorandum identified a “Preliminary List of Potential Flexibilities” that could potentially inform SIP development.<sup>20</sup> However, the EPA made clear in Attachment A that the list of ideas were not suggestions endorsed by the Agency but rather “comments provided in various forums” on which the EPA sought “feedback from interested stakeholders.”<sup>21</sup> Further, Attachment A stated, “EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor is the EPA specifically recommending that states use these approaches.”<sup>22</sup> Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will thoroughly review the technical and legal justifications for doing so.

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<sup>20</sup> March 2018 memorandum, Attachment A.

<sup>21</sup> *Id.* at A-1.

<sup>22</sup> *Id.*

The remainder of this section describes the EPA’s proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

### *1. Selection of Analytic year*

In general, the states and the EPA must implement the interstate transport provision in a manner “consistent with the provisions of [title I of the CAA.]” CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed “as expeditiously as practicable” and no later than the schedule of attainment dates provided in CAA section 181(a)(1).<sup>23</sup> Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin v. EPA*, remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d 303 at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland v. EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA’s denial of a petition under CAA section 126(b). *Maryland v. EPA*, 958 F.3d 1185, 1203-04 (D.C. Cir. 2020). The court noted that “section 126(b) incorporates the Good Neighbor Provision,” and, therefore, “EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the next downwind attainment deadline. Therefore, the agency must evaluate downwind air quality

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<sup>23</sup> For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

at that deadline, not at some later date.” *Id.* at 1204 (emphasis added). The EPA interprets the court’s holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,<sup>24</sup> which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.<sup>25</sup> The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024 Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states’ obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin*, 938 F.3d at 322. Consequently, in this

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<sup>24</sup> The EPA notes that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin*, 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

<sup>25</sup> *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

## *2. Step 1 of the 4-Step Interstate Transport Framework*

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, the EPA proceeds to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the "contribute significantly to nonattainment" and the "interfere with maintenance" prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina v. EPA*.<sup>26</sup>

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (i.e., 2023).<sup>27</sup>

In addition, in this proposal, the EPA identifies a receptor to be a "maintenance" receptor for purposes of defining interference with maintenance, consistent with the method used in the

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<sup>26</sup> See *North Carolina v. EPA*, 531 F.3d at 910-11 (holding that the EPA must give "independent significance" to each prong of CAA section 110(a)(2)(D)(i)(I)).

<sup>27</sup> See 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. See 70 FR at 25241, 25249 (January 14, 2005); see also *North Carolina*, 531 F.3d at 913-14 (affirming as reasonable the EPA's approach to defining nonattainment in CAIR).

CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 136 (D.C. Cir. 2015).<sup>28</sup> Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the “maximum” future design value at each receptor based on a projection of the maximum measured design value over the relevant period. The EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (i.e., ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (e.g., dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area’s ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term “maintenance-only” to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies “maintenance-only” receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as “maintenance only”

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<sup>28</sup> See 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

receptors, even if they are currently measuring nonattainment based on the most recent official design values.

### *3. Step 2 of the 4-Step Interstate Transport Framework*

In Step 2, the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (i.e., 0.70 parts per billion (ppb) for the 2015 8-hour ozone NAAQS), the upwind state is not "linked" to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed "significant" and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (i.e., 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rulemaking is still the result of the collective impacts of contributions

from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237-38, for selection of 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

#### *4. Step 3 of the 4-Step Interstate Transport Framework*

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be

insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.<sup>29</sup>

#### *5. Step 4 of the 4-Step Interstate Transport Framework*

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) ("Each such [SIP] shall...contain adequate provisions..."). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin v. U.S. E.P.A.*, 786 F.3d 1169, 1175-76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

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<sup>29</sup> As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539-51 (October 26, 2016); CSAPR, 76 FR 48208, 48246-63 (August 8, 2011); CAIR, 70 FR 25162, 25195-229 (May 12, 2005); or the NO<sub>x</sub> SIP Call, 63 FR 57356, 57399-405 (October 27, 1998). *See also* Revised CSAPR Update, 86 FR 23054, 23086-23116 (April 30, 2021). Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

## **II. Maryland's SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS**

On October 11, 2018, the Maryland Department of the Environment (MDE), on behalf of the State of Maryland, made a SIP submission to address most of the 2015 8-hour ozone NAAQS i-SIP requirements under CAA section 110(a)(2), except for the CAA section 110(a)(2)(D)(i)(I) (the “Good Neighbor” or “interstate transport”) requirements, which Maryland proposed to address in a separate SIP submittal. The EPA published a final approval of this SIP submission on September 18, 2019, 84 FR 49062. On October 16, 2019, MDE then submitted a separate, supplemental SIP revision addressing only the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS (the 2019 SIP).<sup>30</sup> Maryland's 2019 SIP submittal provided an analysis of ozone monitoring data and emission trends, as well as a list of already-enacted Federal and State air pollution control measures, before concluding that Maryland satisfied its section 110(a)(2)(D)(i)(I) Good Neighbor obligations for purposes of the 2015 8-hour ozone NAAQS.

Maryland's SIP submittal roughly followed the 4-step interstate transport framework recommended by the EPA. For Steps 1 and 2, Maryland relied on the EPA's modeling in the March 2018 memorandum to demonstrate that it complies with the requirements of CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. As part of Step 1, Maryland's SIP submittal identified the downwind nonattainment and maintenance receptors for which the EPA's modeling projected impacts from Maryland emissions, and thus linkage in 2023. The State examined historical ozone design values based on past monitoring data from 2015 to 2018 at key linked monitors to evaluate the likelihood of future compliance with the NAAQS at those locations. As part of Step 2, Maryland's SIP submission specified that even though the EPA's August 31, 2018<sup>31</sup> memorandum concluded that it may be reasonable and appropriate for states

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<sup>30</sup> See the October 16, 2019 SIP submittal included in docket ID No. EPA-R03-OAR-2021-0872.

<sup>31</sup> Analysis of Contribution Thresholds Memo, August 2018, [https://www.epa.gov/sites/production/files/2018-09/documents/contrib\\_thresholds\\_transport\\_sip\\_subm\\_2015\\_ozone\\_memo\\_08\\_31\\_18.pdf](https://www.epa.gov/sites/production/files/2018-09/documents/contrib_thresholds_transport_sip_subm_2015_ozone_memo_08_31_18.pdf)

to use a 1 ppb contribution threshold, as an alternative to a 1-percent threshold, Maryland chose to use the one-percent threshold as it captured a greater contribution from upwind states.

In the 2019 SIP submittal, Maryland also asserted that it does not agree with the results of the EPA's 2023 projection modeling outlined in the March 2018 memorandum, because in their opinion the air quality modeling accompanying the March 2018 memorandum was "based on flawed, unenforceable inventory assumptions and modeling methodology" that resulted in lower projected 2023 design values and state contributions that differ from the expected reality.<sup>32</sup>

Maryland further explained that even though that was the most current modeling available at the time, states should not solely rely on it to fulfill their interstate transport obligations, and for that reason, the State identified four items that, in its opinion, need to be included in a SIP submission to address section 110(a)(2)(D)(i)(I) for the EPA to approve it. These four items include the following: (i) completion of the entire 4-step interstate transport framework; (ii) requiring optimization of post-combustion controls at EGUs as a cost-effective strategy for NO<sub>x</sub> reduction; (iii) requiring that reductions included in the modeling for interstate transport SIP submittals be permanent, enforceable and implemented as expeditiously as possible; and (iv) requiring that the optimization of post-combustion controls at EGUs happen on a daily basis, consistent with the way peak days are used to demonstrate attainment with the standards using measured ozone data. Even though Maryland did not agree with the results of the EPA's March 2018 memorandum modeling on the basis that it contains unenforceable control measures, the State did use that modeling analysis to fulfill Step 2 of the 4-step interstate transport framework.

For Step 3 of the 4-step interstate transport framework, Maryland's SIP submittal highlighted the EPA's CSAPR Update rule. In particular, the State focused on the determination of the necessary level of NO<sub>x</sub> emission control and the state budgets for NO<sub>x</sub> emissions for EGUs, corresponding to emission levels after accounting for operation of existing pollution controls, emission reductions available at a certain cost threshold, and any additional reductions

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<sup>32</sup> See the October 16, 2019 SIP submittal at 2 included in docket ID No. EPA-R03-OAR-2021-0872.

required to address interstate ozone transport. Maryland acknowledged that the CSAPR Update rule aids in the reduction of interstate transport through the implementation of NO<sub>x</sub> emissions limits for EGUs in 22 eastern states, including Maryland, during the ozone season.

Lastly, with regard to Step 4 of the 4-step interstate transport framework, the State's SIP submittal described why it believed that Maryland's NO<sub>x</sub> Rule met and exceeded the CSAPR Update requirements. Maryland claims that Maryland's NO<sub>x</sub> Rule controls EGU NO<sub>x</sub> emissions at levels more stringent than required by the CSAPR Update rule. The submittal notes that Maryland has implemented its NO<sub>x</sub> Rule in two phases, with Phase 1 satisfying the CSAPR Update requirements, while Phase 2, which took effect in 2020, could be considered as additional emission reductions eliminating Maryland's significant contributions to downwind states. As part of Step 4, Maryland's submittal also provided a list of state regulations and voluntary control measures for a variety of other source categories for both NO<sub>x</sub> and VOC emissions that the State has adopted to demonstrate how Maryland complies and will continue to comply with the good neighbor provisions of the 2015 8-hour ozone NAAQS.

### **III. EPA Evaluation**

The EPA is proposing to find that Maryland's October 16, 2019 SIP submission does not meet the state's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state, and the EPA is therefore proposing to disapprove Maryland's SIP submission. This proposed disapproval is based on newer, updated modeling performed by the EPA which was not available when Maryland submitted its supplemental SIP, and the EPA's evaluation of the SIP submission using the 4-step interstate transport framework.

#### *A. Maryland*

##### *1. Evaluation of information provided by Maryland regarding Steps 1 and 2*

As noted in Section II of this document, at Steps 1 and 2 of the 4-step interstate transport framework, Maryland used the EPA modeling released in the March 2018 memorandum<sup>33</sup> to identify nonattainment and maintenance receptors in 2023 and to determine whether the State was linked to any of these receptors in 2023. The March 2018 memorandum modeling was the latest modeling available when Maryland submitted its SIP revision in October 2019. As described previously in this document, the EPA has since released air quality modeling using the most recent available and technically appropriate emissions data (i.e., 2016v2 emissions platform). Therefore, the EPA proposes to primarily rely on the EPA's most recent modeling to identify nonattainment and maintenance receptors and identify upwind state linkages to these receptors 2023.

In Maryland's 2019 SIP submission, the State used the modeling in the EPA's March 2018 memorandum to identify six downwind monitors to which Maryland sources contributed to nonattainment or interfered with maintenance. The EPA's air quality modeling for 2023 using the 2016v2 emissions platform shows nonattainment or interference at five of the same six monitors, as shown in Table 1 of this document in the following subsection, although in slightly differing amounts. As noted in Section II of this document, Maryland objected to the modeling attached to the March 2018 memorandum by claiming that it relied on outdated information and flawed inventory assumptions that would tend to lessen downwind contributions from upwind sources. The EPA's air quality modeling using the 2016v2 emissions platform would presumably address some of Maryland's concerns regarding the March 2018 memorandum modeling. As stated in Section I of this document, the EPA is accepting comment on this more recent modeling data used to support this action. Regardless, both sets of modeling show that Maryland is linked to nonattainment or interfering with maintenance at downwind out-of-state

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<sup>33</sup> Page 2 of Maryland's 2019 SIP submission notes that Maryland does not agree with the 2023 modeling assessment included with the March 2018 memorandum because it is "based on flawed, unenforceable inventory assumptions and modeling assumptions" that result in lower projected 2023 design values and state contributions that differ from reality. However, Maryland does not elaborate further on these "flaws," nor does Maryland explain how or why these flaws, if corrected, would either change the status of any receptor or show that Maryland is not linked to any downwind nonattainment or maintenance receptors.

monitors, and the State did not provide any alternative modeling analysis that showed an alternative set of nonattainment or maintenance receptors in 2023, nor did Maryland provide an alternative analysis to demonstrate that they were not linked to nonattainment or interfering with maintenance at downwind monitors. Therefore, both the EPA and Maryland agree that Maryland’s sources are contributing to nonattainment or interfering with maintenance at downwind monitors.

## 2. Results of the EPA’s Step 1 and Step 2 modeling and findings for Maryland

As described in Section I of this document, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. The EPA examined these data to determine if emissions from Maryland sources contribute at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1 of this document, the data<sup>34</sup> indicate that in 2023, emissions from Maryland contribute greater than 1 percent of the NAAQS to nonattainment or maintenance-only receptors in Fairfield County and New Haven County, Connecticut; and in Queens County and Suffolk County, New York.<sup>35</sup>

Therefore, based on the EPA’s evaluation of the information submitted by Maryland, and based on the EPA’s most recent modeling results for 2023, the EPA proposes to find that Maryland is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework.

| <b>Table 1: Maryland Linkage Results Based on EPA’s Updated 2016v2-based Modeling</b> |          |                               |  |  |                                   |
|---|----------|-------------------------------|--|--|-----------------------------------|
| Receptor ID   | Location | Nonattainment/<br>Maintenance | 2023<br>Average<br>Design<br>Value (ppb) | 2023<br>Maximum<br>Design Value<br>(ppb) | Maryland<br>Contribution<br>(ppb) |
|   |          |                               |  |  |                                   |

<sup>34</sup> Design values and contributions at individual monitoring sites nationwide are provide in the file: 2016v2\_DVs\_state\_contributions.xlsx which is included in docket ID No. EPA-HQ-OAR-2021-0663.

<sup>35</sup> These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this document. That modeling showed that Maryland had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file “Ozone Design Values and Contributions Revised CSAPR Update.xlsx” in docket ID No. EPA-HQ-OAR-2021-0663.

|           |                                  |               |      |      |      |
|-----------|----------------------------------|---------------|------|------|------|
| 090013007 | Fairfield County - Stratford, CT | Nonattainment | 74.3 | 75.2 | 1.18 |
| 090019003 | Fairfield County - Westfield, CT | Nonattainment | 76.9 | 77.2 | 1.18 |
| 090010017 | Fairfield County - Greenwich, CT | Maintenance   | 73.4 | 74.0 | 0.67 |
| 090099002 | New Haven - Madison, CT          | Maintenance   | 71.7 | 73.8 | 1.51 |
| 360810124 | Queens County, NY                | Maintenance   | 66.2 | 67.8 | 1.10 |
| 361030002 | Suffolk County - Babylon, NY     | Nonattainment | 67.0 | 68.8 | 1.12 |

### 3. Evaluation of information provided regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To evaluate effectively which emissions in the state should be deemed "significant" and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (i.e., Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be "significant" (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City*, 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section

110(a)(2)(D)(i)(I) must prohibit “any source or other type of emissions activity within the State” from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA’s analysis (or an alternative approach to defining “significance” that comports with the statute’s objectives) to determine whether and to what degree emissions from a state should be “prohibited” to eliminate emissions that will “contribute significantly to nonattainment in, or interfere with maintenance of,” the NAAQS in any other state. At Step 3 of the 4-step interstate transport framework, Maryland did not include an accounting of all of the NO<sub>x</sub> emitting facilities in the state along with an analysis of potential NO<sub>x</sub> emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements.

Maryland’s analysis instead focused on the CSAPR Update rule and described how, as of May 2017, that rule has reduced ozone season NO<sub>x</sub> emissions from power plants in 22 eastern states, including Maryland. Maryland referenced the EPA’s finding in the CSAPR Update that for the updated NO<sub>x</sub> ozone season budgets for EGUs, an increased cost threshold of \$1,400 per ton of NO<sub>x</sub> reduced was appropriate, because it represented the level of maximum marginal NO<sub>x</sub> reduction with respect to cost, while not over-controlling upwind states’ emissions. Maryland’s SIP submittal included a table with the 22 states’ updated ozone season NO<sub>x</sub> budgets. That table shows that for Maryland, the CSAPR Update NO<sub>x</sub> ozone season budget, at the \$1,400 per ton threshold, was 3,238 tons.<sup>36</sup>

Maryland’s focus on the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of \$1400/ton (2011\$) for the 2008 ozone NAAQS) rule to satisfy their obligations for the 2015 8-hour ozone NAAQS is unpersuasive. First, the CSAPR Update did not regulate non-electric generating units (non-EGU), so Maryland’s reliance on only the CSAPR Update analysis is incomplete because Maryland did not analyze non-EGU sources. *See Wisconsin*, 938 F.3d at 318-20. Second, relying on the CSAPR Update’s (or any other CAA

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<sup>36</sup> See Maryland’s October 16, 2019 SIP submittal included in docket ID No. EPA-R03-OAR-2021-0872.

program's) determination of cost-effectiveness without further Step 3 analysis by Maryland is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While the EPA has not established a benchmark cost-effectiveness value for the 2015 8-hour ozone NAAQS interstate transport obligations, because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of \$1,400/ton for the CSAPR Update (which addresses the 2008 ozone NAAQS and is in 2011\$) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS. Furthermore, Maryland did not explain how the ozone season NO<sub>x</sub> emission budget for Maryland's EGUs set by the CSAPR Update, which was intended to address ozone transport nonattainment and maintenance issues for the less-stringent 2008 ozone NAAQS, eliminates Maryland's significant contribution to the downwind nonattainment and maintenance receptors to which Maryland is linked for purposes of the more stringent 2015 8-hour ozone NAAQS.

In addition, the updated 2023 EPA modeling using the 2016v2 emissions platform captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate Maryland's linkage at Steps 1 and 2 under the 2015 8-hour ozone NAAQS. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) ("Each such [SIP] shall...

contain adequate provisions...”). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin v. U.S. E.P.A.*, 786 F.3d 1169, 1175-76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

Notwithstanding the above deficiencies, Maryland asserts at Step 3 of its analysis that “Maryland’s NO<sub>x</sub> Rule controls EGU NO<sub>x</sub> emissions at levels more stringent than what is required by the CSAPR Update and it will achieve the necessary reductions to meet the State’s good neighbor obligations under the 2015 8-hour ozone NAAQS.”<sup>37</sup> Maryland’s submittal provided, among other things, a description of the Maryland NO<sub>x</sub> Rule to control NO<sub>x</sub> emissions from Coal-Fired EGUs, and the following description of the NO<sub>x</sub> Rule is taken largely from Maryland’s submittal.<sup>38</sup> Maryland’s NO<sub>x</sub> Rule took effect in May 2015 and contains two phases. Phase I, found at COMAR 26.11.38.3, became effective on May 1, 2015 and required owners and operators of affected EGUs (coal-fired EGUs in Maryland) to comply with several measures meant to optimize their emission controls. These measures included: (i) the submission of a plan for approval by MDE and the EPA demonstrating how the EGU will operate installed pollution control technology and combustion controls during the ozone season to minimize emissions (COMAR 26.11.38.03A(1)); (ii) beginning May 1, 2015, and during the entire ozone season, requiring the owners and operators to operate and optimize the use of all installed pollution and combustion controls consistent with the technological limitations, manufacturers’ specifications, good engineering, maintenance practices, and air pollution control practices to minimize emissions (COMAR 26.11.38.03A(2)); (iii) setting an ozone season system-wide NO<sub>x</sub> emission rate of 0.15 pounds per million British units (lbs/MMBtu) as a 30-day rolling average for affected EGUs (COMAR 26.11.38.03B(1)); (iv) exempting EGUs that are the only facility in Maryland directly or indirectly owned, operated, or controlled by the owner, operator, or controller of the facility from the 0.15 lbs/MMBtu system-wide emission rate

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<sup>37</sup> *See* Maryland’s October 16, 2019 SIP submittal at 7 included in docket ID No. EPA-R03-OAR-2021-0872.

<sup>38</sup> The Maryland NO<sub>x</sub> rule is codified at COMAR 26.11.38 (Control of NO<sub>x</sub> Emissions from Coal-Fired Electric Generating Units).

specified in COMAR 26.11.38.03B(1) (COMAR 26.11.38.03B(3)); and (v) setting a NO<sub>x</sub> emission rate for EGUs using fluidized bed combustors of 0.10 lbs/MMBtu as a 24-hour block average on an annual basis while exempting these units from meeting COMAR 26.11.38.03A, B(1) and (2), and (C) (COMAR 26.11.38.03D).<sup>39</sup> Sources subject to Phase I must also continue meeting annual NO<sub>x</sub> reductions in COMAR 26.11.27, Maryland's Healthy Air Act. Maryland claims that for owners and operators to meet the limits set by Maryland's NO<sub>x</sub> Rule, the sources are required to run their controls "continuously."<sup>40</sup>

In addition, Maryland's 2019 SIP Submission contains a table (Table 5)<sup>41</sup> which the State describes as listing "NO<sub>x</sub> indicator rates" which demonstrate compliance with the optimization requirement in COMAR 26.11.38.03A(1). These rates, found in COMAR 26.11.38.05, are described as "Required 24-Hour Block Average Unit Level NO<sub>x</sub> Emission Rates." The rates can vary from unit to unit at each affected source (and at the unit level based on heat input at Brandon Shores Unit 2) and between affected sources. These limits range from 0.07 lbs/MMBtu to 0.34 lbs/MMBtu. The effect of meeting these indicator rates is that "(2) An affected electric generating unit shall not be required to submit a unit-specific report consistent with § A(3) of this regulation when the unit emits at levels that are at or below the..." rates in the table. COMAR 26.11.38.05A(2). If the affected EGU does not meet its prescribed emission rate, it must submit a report to MDE for that day explaining the circumstances of the exceedance. COMAR 26.11.38.05A(3). As specified in COMAR 26.11.38.05A(4), such exceedance shall not be a violation if it was caused by certain events and was in accordance with the plan submitted under COMAR 26.11.38.03A(1).

Regarding Phase I of Maryland's NO<sub>x</sub> Rule, the EPA notes that the Phase I NO<sub>x</sub> Rule emission reductions took effect in 2017 and are captured in the EPA's updated 2023 modeling

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<sup>39</sup> COMAR 28.11.38(D) does not specify that CFBs must meet the 0.10 lb/MMBtu 24-hour block average rate on an "annual basis," so EPA has not been able to verify that this rate applies outside of ozone season.

<sup>40</sup> See Maryland's October 16, 2019 SIP submittal at 7 included in docket ID No. EPA-R03-OAR-2021-0872.

<sup>41</sup> *Id.* at 8.

using the 2016v2 emissions platform, but that emissions modeling still shows that Maryland is contributing to nonattainment or interfering with maintenance at downwind receptors in other states. The EPA's latest projections of the baseline EGU emissions uses the version 6 – Summer 2021 Reference Case of the Integrated Planning Model (IPM). IPM is a multi-regional, dynamic, and deterministic linear programming model of the U.S. electric power sector. The model provides forecasts of least cost capacity expansion, electricity dispatch, and emission control strategies, while meeting energy demand, environmental, transmission, dispatch, and reliability constraints.

The IPM version 6 – Summer 2021 Reference Case incorporated recent updates through the Summer of 2021 to account for updated Federal and State environmental regulations for EGUs. This projected base case accounts for the effects of the finalized Mercury and Air Toxics Standards rule, CSAPR, the CSAPR Update, the Revised CSAPR Update, New Source Review settlements, the final effluent limitation guidelines (ELG) Rule, the coal combustion residual (CCR) Rule, and other on-the-books Federal and State rules (including renewable energy tax credit extensions from the Consolidated Appropriations Act of 2021) through early 2021 impacting SO<sub>2</sub>, NO<sub>x</sub>, directly emitted particulate matter, CO<sub>2</sub>, and power plant operations. It also includes final actions the EPA has taken to implement the Regional Haze Rule and the best available retrofit technology (BART) requirements. Further, the IPM Platform version 6 uses demand projections from the Energy Information Agency's (EIA) annual energy outlook (AEO) 2020.<sup>42</sup>

The IPM version 6 – Summer 2021 Reference Case uses the national electric energy data system (NEEDS) v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be

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<sup>42</sup> Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, architecture parameters, and IPM comments form can be found on EPA's website at: <https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case>

assigned to future implementation of the announced future closure or retirement.<sup>43</sup> The available retirement-related information was reviewed for each unit, and the following rules are applied to remove:

- i) Units that are listed as retired in the December 2020 EIA Form 860M;
- ii) Units that have a planned retirement year prior to June 30, 2023 in the December 2020 EIA Form 860M;
- iii) Units that have been cleared by a regional transmission operator (RTO) or independent system operator (ISO) to retire before 2023, or whose RTO/ISO clearance to retire is contingent on actions that can be completed before 2023;
- iv) Units that have committed specifically to retire before 2023 under Federal or state enforcement actions or regulatory requirements; and
- v) Finally, units for which a retirement announcement can be corroborated by other available information. Units required to retire pursuant to enforcement actions or state rules on July 1, 2023 or later are retained in NEEDS v6.

Retirements or closures taking place on or after July 1, 2023 are captured as constraints on those units in the IPM modeling, and the units are retired in future year projections per the terms of the related requirements.

As highlighted in previous rulemakings, the IPM documentation and the EPA's Power Sector Modeling website, the EPA's goal is to explain and document the use of IPM in a transparent and publicly accessible manner, while also providing for concurrent channels for improving the model's assumptions and representation by soliciting constructive feedback to improve the model. This includes making all inputs and assumptions to the model, output files from the model, and IPM feedback form publicly available on the EPA's website.

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<sup>43</sup> The "Capacity Dropped" and the "Retired Through 2023" worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory - NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: <https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6>

Phase II<sup>44</sup> of Maryland's NOx Rule took effect on June 1, 2020 and applies only to owners or operators of EGUs without SCR controls, which consists of seven units at four facilities. These EGUs were required to choose between four options by June 1, 2020. The options include: (i) installation and operation of an SCR control system by June 1, 2020 that can meet a NOx emission rate of 0.09 lbs/MMBtu during the ozone season based on a 30-day rolling average; (ii) permanently retiring the unit; (iii) switching fuel permanently from coal to natural gas and operating the unit on natural gas; or (iv) meeting a system-wide, daily NOx tonnage cap of 21 tons per day for every day of the ozone season or meeting a system-wide NOx emission rate of 0.13 lbs/MMBtu as a 24-hour block average. Option 4, if selected by the source, included additional measures requiring a series of greater emission reductions beginning in May 2016, 2018, and 2020.<sup>45</sup> If the owner or operator did not select option 4, then the allowable 30-day system-wide rolling average NOx emission rate was set at 0.15 lbs/MMBtu during the ozone season. In addition, option 4 included provisions to ensure that the reliability of the electrical system is maintained. There are additional provisions in the NOx Rule which addressed the options and limits applicable if a unit or units included in a "system" as of May 1, 2015 were no longer owned, operated or controlled by the "system."

For Phase II, the 2019 SIP Submission notes that Chalk Point, Dickerson and Morgantown generating stations selected option 4, that Brandon Shores and Herbert A. Wagner generating stations chose the optimization requirement in COMAR 26.11.38.03A, and that pursuant to a May 23, 2018 settlement agreement, C.P. Crane agreed to cease, and has ceased, the burning of coal in Units 1 and 2 by no later than June 15, 2018, and that the coal-fired boilers have been disabled. Maryland predicted that the implementation of both the Phase I and II requirements would result in ozone season NOx emission reductions of 2,507 to 2,627 tons from the base year 2011 emissions. The SIP submission did not specify the amount of reduction that

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<sup>44</sup> Phase II is codified at COMAR 26.11.38.04 (*Additional NOx Emission Control Requirements*).

<sup>45</sup> Deeper reductions include meeting a 30-day system-wide rolling average NOx emission rate of 0.13 lbs/MMBtu in May 2016, 0.11 lbs/MMBtu in May 2018, and 0.09 lbs/MMBtu in May 2020 during the ozone season.

would occur on any specific date, or the amount of reduction attributable to any specific element of the NOx Rule. As noted earlier, these reductions are likely included in the 2016v2 emission platform, and that modeling continues to show that Maryland is contributing to downwind nonattainment and maintenance receptors for the 2015 8-hour ozone NAAQS.

The SIP submission also listed several control measures, including regulation of emissions from the mobile sector, pursuing significant regulation of industrial sources, and implementing VOC rules that regulate emissions from other source categories that Maryland has implemented to address the control of VOC and NOx emissions from various point, mobile, and area sources. Maryland's submission also described additional voluntary or innovative control measures that the State has implemented in attainment plan SIP provisions and stated that even though they do not rely on any emission reductions projected as a result of the implementation of these voluntary programs to demonstrate attainment, these strategies assist in the overall clean air goals across the State.

Unfortunately, Maryland failed to provide any analysis as to how these many provisions cited in its 2019 SIP Submittal would eliminate the significant contribution of Maryland's emission sources to downwind nonattainment or maintenance receptors to which Maryland's emissions are linked by the EPA's 2016v2 emissions platform. As noted in Section D-4 of this proposal, "[i]n general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment." Maryland provided no such multifactor assessment, and instead claims, without

any modeling to support this claim, that its existing, already adopted control measures for EGUs and other sources will keep Maryland from contributing significantly to nonattainment or interfere with maintenance at downwind receptors to which it is linked. As such, it does not rise to the level of a “well-documented evaluation.”

Maryland’s SIP submittal also included a weight of evidence analysis which analyzed various scenarios. These scenarios evaluated various iterations of controls, including SCR controls and emission limits comparable to those under the 2015 Maryland NO<sub>x</sub> Rule, and applied these SCR controls and limits to emissions sources in other states (IL, IN, KY, MI, NC, OH, WV, VA, NY and PA). This is the same weight of evidence analysis that Maryland included with its transport SIP submittal for the 2008 ozone NAAQS. This modeling analysis only addressed the impact that installation of these controls and imposition of these limits in other states would have on Maryland’s monitors. There is no analysis in this weight of evidence portion addressing Maryland’s contribution to downwind receptors. It therefore does not change the EPA’s evaluation of Maryland’s obligations to address its own contributions.

The EPA acknowledges that Maryland’s efforts to reduce NO<sub>x</sub> emissions from EGUs, and other requirements to reduce NO<sub>x</sub> and VOC emissions from other source categories, have helped reduce the interstate transport impacts of emissions from Maryland’s sources on other states’ receptors. In addition to addressing ambient ozone levels in nonattainment areas in Maryland, these state specific requirements should also help reduce the level of NO<sub>x</sub> emissions reductions that Maryland needs to obtain in order to meet the section 110(a)(2)(D)(i)(I) requirements for the 2015 8-hour ozone NAAQS.

Based on the EPA’s evaluation of Maryland’s SIP submittal at Step 3, however, the EPA proposes that Maryland was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and therefore the EPA proposes to base part of its disapproval on Maryland’s failure to do so.

#### *4. Evaluation of information provided regarding Step 4*

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. Maryland identified a number of measures that were either in development or anticipated to occur in the future.<sup>46</sup> As discussed in detail in the Step 3 analysis above, Phase II of Maryland's NO<sub>x</sub> Rule (COMAR 26.11.38.04) requires coal-fired EGUs that have not installed SCR to choose from one of four options by June 1, 2020 that should result in NO<sub>x</sub> emission reductions.<sup>47</sup> Another measure is the Regional Greenhouse Gas Initiative (RGGI), which Maryland projects will result in Maryland's and other participating states' regional CO<sub>2</sub> emission budgets declining by 30% by 2030.<sup>48</sup> However, the State has not revised its SIP to include these emission reductions to ensure the reductions are permanent and enforceable. As a result, the EPA also proposes as an additional ground for disapproval of Maryland's SIP submission the fact that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

## *5. Conclusion*

Based on the EPA's evaluation of Maryland's SIP submission, the EPA is proposing to find that Maryland's October 16, 2019 SIP submission does not meet the State's interstate transport obligations, because it fails to show that the provisions adopted by Maryland to reduce NO<sub>x</sub> and VOC emissions from sources within Maryland will reduce emissions to levels that will not contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS at downwind monitors in other states to which it is linked. Maryland's 2019 SIP submission lacks an analysis of the effect that Maryland's adopted emission reductions would

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<sup>46</sup> Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section III.A.3 of this document. In this section, the EPA explains that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

<sup>47</sup> See Maryland's October 16, 2019 SIP submittal at pages 8-9, included in docket ID No. EPA-R03-OAR-2021-0872.

<sup>48</sup> *Id.* at 16.

have on the specific downwind monitors which the EPA's March 2018 memorandum modeling analysis and 2016v2 emissions platform analysis determined that Maryland sources contribute more than 1 percent to nonattainment or interference with maintenance. Maryland's SIP submission disputes neither the significant contribution from Maryland nor the "linkages" between Maryland emissions and these downwind nonattainment or maintenance monitors. Further, although Maryland objects to the modeling assessment included with the EPA's March 2018 Memorandum, it does not offer an alternative modeling assessment showing that projected reductions in Maryland's emissions, as outlined in its 2019 SIP submittal, would eliminate the contribution Maryland's emissions make to non-attaining or maintenance monitors identified by the EPA's 2018 memorandum modeling assessment, or to those in the more recent 2016v2 emissions platform assessment. Maryland's modeling assessment in its 2019 SIP submittal merely explores the varying effects that various emission reduction strategies in eastern states would have on ozone nonattainment in general, rather than the effect Maryland's reductions would have on non-attaining or maintenance monitors to which it is linked.

#### **IV. Proposed Action**

The EPA is proposing to disapprove Maryland's October 16, 2019 SIP submission pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval would establish a 2-year deadline for the EPA to promulgate a FIP for Maryland to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless the EPA approves a new Maryland SIP submission that meets these requirements. Disapproval does not start a mandatory sanctions clock for Maryland.

#### **V. Statutory and Executive Order Reviews**

*A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563:*

*Improving Regulation and Regulatory Review*

This action is not a “significant regulatory action” as defined by Executive Order 12866 and was therefore not submitted to the Office of Management and Budget for review.

*B. Paperwork Reduction Act (PRA)*

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities

*C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

*D. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

*E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

*F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

*G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

*H. Executive Order 13211, Actions that Significantly Affect Energy Supply, Distribution or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act*

This rulemaking does not involve technical standards.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

*K. CAA Section 307(b)(1)*

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) when the agency action consists of “nationally applicable regulations promulgated, or final actions taken, by the Administrator,” or (ii) when such action is locally or regionally applicable, if “such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.” For locally

or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).<sup>49</sup>

If the EPA takes final action on this proposed rulemaking the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of “nationwide scope or effect” within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 8-hour ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 8-hour ozone NAAQS. The EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform definition of nonattainment and maintenance receptors at Step 1, and a nationally uniform contribution threshold analysis at Step 2.<sup>50</sup> For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA

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<sup>49</sup> In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit’s authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

<sup>50</sup> A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator’s determination that the “nationwide scope or effect” exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95-294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402-03.

to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).<sup>51</sup>

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: February 7, 2022

Diana Esher,  
Acting Regional Administrator,  
Region III

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<sup>51</sup> The EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.